### THE MODEL

The COSMO model in Climate Mode (COSMO-CLM) is a non-hydrostatic regional climate model developed by the CLM-Community on the basis of the Local Model (LM) for weather forecasting of DWD (now COSMO model). The developments related to the COSMO model are coordinated by COSMO (COnsortium for Small scale MOdeling).

Thus, the model system serves for Numerical Weather Prediction and Regional Climate Modeling. Recently, a new unified model version COSMO 5 for weather, climate, and environmental research has been released.

COSMO-CLM is an atmosphere model with the soil-vegetation model TERRA already included. Additionally, there is the possibility to use COSMO-ART, which enables the calculation of the interactions of trace gases and aerosol with the atmospheric radiation. Other regional processes in the climate system like ocean and ice sheet dynamics, plant responses, aerosol-cloud interaction, and RCM-GCM feedback are still prescribed or neglected.

The development of a regional earth system model is one of the biggest challenges to our community to address the needs of the society for more precise climate change information on a local scale. Thus, the project group OASIS is developing an unified interface for the various coupling initiatives in the CLM-Community (land, ocean, sea-ice, RCM-GCM feedback, etc.) to expand COSMO-CLM to an regional earth system model.

▶ www.clm-community.eu



### **MEETINGS**

# **General Assembly:**

Here, all CLM-Community members meet every year in late summer. Recent developments are presented, further cooperations discussed and community decisions taken.

#### **User Seminar:**

Common meeting of COSMO-, CLM- and ART- communities in springtime. Emphasis is here on the scientific presentations and the exchange of information between the communities.

# **Training Course:**

All new users of COSMO, ART and CLM-Community are invited to the training course in Spring to get a practical introduction of the model system.



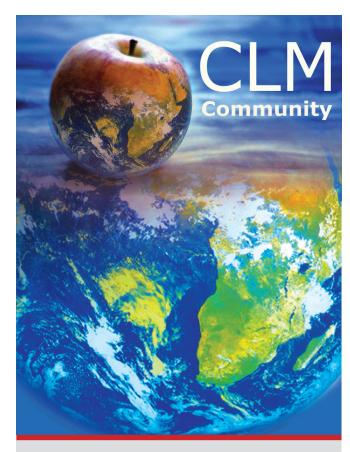
QR-Code to ▶ www.clm-community.eu



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**INFORMATION** 

Climate Limited-area Modelling Community

International network of scientists

### THE CLM-COMMUNITY



The Climate Limited-area Modelling Community (CLM-Community) is an open, international network of scientists, who investigate the regional climate by developing and applying the COSMO model in Climate Mode (COSMO-CLM). All members accepted the CLM-Community agreement as a basis of joint efforts in COS-MO-CLM development and application.

In summer 2014, the CLM-Community has 239 scientific members from 59 climate research institutions all over the world. It is the largest obliging cooperation in the field of regional climate modelling aiming to address the challenges of model development, to efficiently use the computing resources, and to make substantial contributions to answer the key questions of regional climate research.

For more information, please visit our website!

▶ www.clm-community.eu

Brazil	
China	2
Iran	
Israel	2
Mexico	
Nigeria	
Saudi Arabia	
Senegal	2
Tanzania	
USA	2
Venezuela	
Vietnam	

Austria	3
Belgium	3
Cyprus	1
Finnland	1
Germany	21
Greece	2
Ireland	1
Italy	2
Luxembourg	1
Russia	1
Switzerland	3
Turkey	1
UK	2
Ukraine	1

# COMMUNICATION

The most important tool of the CLM-Community is communication on the level of coordinated model development, on cooperations, and community issues themselves. There are several ways to exchange information at the moment:

- Regular meetings
- COSMO-CLM Website
- Newsletter (bi-annual)
- working and project group meetings and their mailing lists
- the RedC (Redmine for model development and dissemination in the CLM-Community) forum to post and answer questions and the RedC wiki for information
- publications by the members

### **ORGANISATION**

The CLM-Community follows the bottom-up approach to allow the members to take part in community decisions, which happen at the CLM-Community Assembly.

# Working/Project Groups:

The common tasks and interests around the usage and further development of the model system are coordinated and conducted here. Generally, they serve as a forum for collaborations and work distribution.

- WG EVAL: evaluation
- WG DYNNUM: dynamics and numerics
- WG SOILVEG relates to the land surface components of COSMO-CLM,
- WG SUPTECH: support and technical issues
- WG AIO: atmosphere, ocean and ice interaction
- WG CCAR: chemistry, clouds, aerosol and radiation
- WG CRCS: Convection resolving climate simulations